PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Chi-Jung Huang

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Examiner: Gandhi, Jayprakash N.

Docket No. 252011-1300
Top-Team Ref. 0503-9729US

For: **Method and System of Classifying Demand Data**

AMENDMENT AND RESPONSE TO OFFICE ACTION

Mail Stop – Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

The Office Action mailed on April 4, 2006, has been carefully considered. In response thereto, Applicants hereby submit the following amendments and remarks.

In the Claims

This listing of claims will replace all prior versions, and listings, of claims.

Listing of Claims

1. (Original) A computer-implemented method of classifying demand data for at least one allocation term, comprising using a computer to perform the steps of:

inputting the demand data, order data of the allocation term, and supply data; and

classifying the demand data into prioritized demand data according to the order data and the supply data.

2. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 1, further comprising the steps of:

combining and outputting the prioritized demand data; and

updating the supply data according to the prioritized demand data.

3. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 1, wherein the classification step further comprises the steps of:

designating a portion of the demand data, belonging to the order data, as first priority demand data;

designating a portion of the demand data, not belonging to the order data, as unfinished demand data and a portion of the supply data, not belonging to the order data, as unfinished supply data;

designating a portion of the unfinished demand data, belonging to the unfinished supply data, as second priority demand data; and

designating a portion of the unfinished demand data, not belonging to the unfinished supply data, as third priority demand data.

4. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 1, wherein the demand data has at least one demand amount, at least one demand factory, and at least one demand manufacturing technology, the demand factory and the demand manufacturing technology corresponding to the demand amount.

5. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 1, wherein the order data has at least one order amount, at least one order factory, and at least one order manufacturing technology, the order factory and the order manufacturing technology corresponding to the order amount.

6. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 1, wherein the supply data has at least one supply amount, at least one supply factory, at least one supply manufacturing technology, and at least one supply

term, the supply factory, the supply manufacturing technology, and the supply term corresponding to the supply amount.

7. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 3, wherein the step of designating the first priority demand data further comprises the steps of:

comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology;

comparing the order data with the demand data according to the same order amount and demand amount, the different order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology; and

comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the different order manufacturing technology and demand manufacturing technology.

8. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 3, wherein the step of designating the second priority demand data further comprises the steps of:

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply

factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term; and

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

9. (Original) The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 3, wherein the step of designating the third priority demand data further comprises the steps of:

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data and the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data and the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term; and

comparing the unfinished demand data and the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

10. (Original) A storage medium for storing a computer program providing a method of classifying demand data for an allocation term, the method comprising the steps of:

inputting the demand data, order data of the allocation term, and supply data; and

classifying the demand data into prioritized demand data according to the order data and the supply data.

11. (Original) The storage medium as claimed in claim 10, further comprising the steps of:

combining and outputting the prioritized demand data; and

updating the supply data according to the prioritized demand data.

12. (Original) The storage medium as claimed in claim 10, wherein the classification step further comprises the steps of:

designating a portion of the demand data, belonging to the order data, as first priority demand data;

designating a portion of the demand data, not belonging to the order data, as unfinished demand data and a portion of the supply data, not belonging to the order data, as unfinished supply data;

designating a portion of the unfinished demand data, belonging to the unfinished supply data, as second priority demand data; and

designating a portion of the unfinished demand data, not belonging to the unfinished supply data, as third priority demand data.

13. (Original) The storage medium as claimed in claim 10, wherein the demand data has at least one demand amount, at least one demand factory, and at least one demand manufacturing technology, the demand factory and the demand manufacturing technology corresponding to the demand amount.

14. (Original) The storage medium as claimed in claim 10, wherein the order data has at least one order amount, at least one order factory, and at least one order manufacturing technology, the order factory and the order manufacturing technology corresponding to the order amount.

15. (Original) The storage medium as claimed in claim 10, wherein the supply data has at least one supply amount, at least one supply factory, at least one supply manufacturing technology, and at least one supply term, the supply factory, the supply manufacturing technology, and the supply term corresponding to the supply amount.

16. (Original) The storage medium as claimed in claim 12, wherein the step of designating the first priority demand data further comprises the steps of:

comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology;

comparing the order data with the demand data according to the same order amount and demand amount, the different order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology; and

comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the different order manufacturing technology and demand manufacturing technology.

17. (Original) The storage medium as claimed in claim 12, wherein the step of designating the second priority demand data further comprises the steps of:

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term; and

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

18. (Original) The storage medium as claimed in claim 12, wherein the step of designating the third priority demand data further comprises the steps of:

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term; and

comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

19. (Original) A system of classifying demand data for an allocation term, comprising:

a demand database, storing the demand data;

a supply database, storing supply data;

a customer interface, enabling input of order data of the allocation term; and

a controller computer, paired to the demand database, the supply database, and the customer interface, classifying the demand data into prioritized demand data according to the order data and the supply data.

20. (Original) The system of classifying demand data for an allocation term as claimed in claim 19, wherein the controller computer further combines and outputs the prioritized demand data and the controller computer further updates the supply data according to the prioritized demand data.

21. (Original) The system of classifying demand data for an allocation term as claimed in claim 19, wherein the controller computer further designates a portion of the demand data belonging to the order data as first priority demand data, designates a portion of the demand data, not belonging to the order data, as unfinished demand data and a portion of the supply data, not belonging to the order data, as unfinished supply data, and further designates a portion of the unfinished demand data, belonging to the unfinished supply data, as second priority demand data, and a portion of the unfinished demand data, not belonging to the unfinished supply data, as third priority demand data.

22. (Original) The system of classifying demand data for an allocation term as claimed in claim 19, wherein the demand data has at least one demand amount, at least one demand factory, and at least one demand manufacturing technology, the demand factory and the demand manufacturing technology corresponding to the demand amount.

23. (Original) The system of classifying demand data for an allocation term as claimed in claim 19, wherein the order data has at least one order amount, at least one order factory, and at least one order manufacturing technology, the order factory and the order manufacturing technology corresponding to the order amount.

24. (Original) The system of classifying demand data for an allocation term as claimed in claim 19, wherein the supply data has at least one supply amount, at least one supply factory, at

least one supply manufacturing technology, and at least one supply term, the supply factory, the supply manufacturing technology, and the supply term corresponding to the supply amount.

25. (Original) The system of classifying demand data for an allocation term as claimed in claim 21, wherein the controller computer further compares the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology, further compares the order data with the demand data according to the same order amount and demand amount, the different order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology, and even further compares the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the different order manufacturing technology and demand manufacturing technology.

26. (Original) The system of classifying demand data for an allocation term as claimed in claim 21, wherein the controller computer further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, and even further compares the unfinished demand data with the unfinished

supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term, and finally compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

27. (Original) The system of classifying demand data for an allocation term as claimed in claim 21, wherein the controller computer further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, and further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term, and finally compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand

manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

28. (Original) A system of demand and capacity management, comprising:

an allocation planning module to receive demand data for one allocation term, order data of the allocation term, and supply data;

a capacity model having route information for the product, wherein the route information records a plurality of tools; and

a capacity management module to reserve capacity according to the demand data and the route information.

29. (Original) The system as claimed in claim 28, wherein the allocation planning module further comprises:

a data input module, inputting the demand data, order data of the allocation term, and supply data; and

a classifying module, classifying the demand data into prioritized demand data according to the order data and the supply data.

30. (Original) The system as claimed in claim 29, wherein the allocation module further comprises:

a combining module, combining and outputting the prioritized demand data; and

a updating module, updating the supply data according to prioritized demand data.

31. (Original) The system as claimed in claim 29, wherein the classifying module further comprises:

a first priority designating module, designating a portion of the demand data, belonging to the order data, as first priority demand data

an unfinished data designating module, designating a portion of the demand data, not belonging to the order data, as unfinished demand data and designating a portion of the supply data, not belonging to the order data, as unfinished supply data;

a second priority designating module, designating a portion of the unfinished demand data, belonging to the unfinished supply data, as second priority demand data; and

a third priority designating module, designating a portion of the unfinished demand data, not belonging to the unfinished supply data, as third priority demand data.

32. The system as claimed in claim 28, wherein the demand data has at least one demand amount, at least one demand factory, and at least one demand manufacturing technology, the demand factory and the demand manufacturing technology corresponding to the demand amount.

33. (Original) The system as claimed in claim 28, wherein the order data has at least one order amount, at least one order factory, and at least one order manufacturing technology, the order factory and the order manufacturing technology corresponding to the order amount.

34. (Original) The system as claimed in claim 28, wherein the supply data has at least one supply amount, at least one supply factory, at least one supply manufacturing technology, and at least one supply term, the supply factory, the supply manufacturing technology, and the supply term corresponding to the supply amount.

35. (Original) The system as claimed in claim 31, wherein the first priority designating module further comprises:

a first-first comparing module, comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology;

a second-first comparing module, comparing the order data with the demand data according to the same order amount and demand amount, the different order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology; and

a third-first comparing module, comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the different order manufacturing technology and demand manufacturing technology.

36. (Original) The system as claimed in claim 31, wherein the second priority designating module further comprises:

a first-second comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

a second-second comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

a third-second comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term; and

a fourth-second comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

37. (Original) The system as claimed in claim 31, wherein the third priority designating module further comprises:

a first-third comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

a second-third comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;

a third-third comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term; and

a fourth-third comparing module, comparing the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

38. (Original) The computer-implemented method as claimed in claim 1, wherein the allocation term is one month.

39. (Original) The computer-implemented method as claimed in claim 1, wherein the method classifies the demand data for a plurality of allocation terms.

40. (Original) The storage medium as claimed in claim 10, wherein the computer program provides a method of classifying data for a plurality of allocation terms.

41. (Original) The system as claimed in claim 31, wherein the allocation term is one month.

REMARKS

The Examiner is thanked for the thorough examination of the present application, the allowance of claims 19-37 and 41, and the indication that claims 2-9, 11-18, and 38-40 contain allowable subject matter. In fact, only claims 1 and 10 have been rejected. Reconsideration of this application and claims 1 and 10 are respectfully requested in light of the remarks contained below.

Claim Rejections-35 USC §102 and §103

Claims 1 and 10 stand rejected under 35 U.S.C. 102(e) as anticipated by or in the alternative, under 35 U.S.C. 103(a) as obvious over Kaneko et al. (US 2001/0020230 A1, hereafter referred to as Kaneko). In particular, the Office Action alleged that, with regard to claims 1 and 10, a maximization of profitability index in Kaneko can be very broadly taken as the claimed prioritize the demand data. Applicants have reviewed the cited reference with care, paying particular attention to the passages cited, and are compelled to respectfully disagree with the Office Action's characterization of the reference. In the interest of expediting the prosecution of this application, Applicants respectfully traverse the rejections made by the Examiner for at least the reasons discussed below.

Claim 1

Claim 1 is directed to a computer-implemented method of classifying demand data for at least one allocation term, comprising inputting the demand data, order data of the allocation term, and supply data and classifying the demand data into prioritized demand data according to the order data and the supply data. Thus, the demand data is first input, then classified and prioritized.

In contrast, Kaneko discloses a demand-production scheme planning apparatus to increase corporate profit. The claimed demand data is not explicitly mentioned in Kaneko. According to steps S100 and S102 in Fig. 6 of Kaneko, stock records and sales schemes are input to the apparatus, but none of them is classified or prioritized. Different values of profitability index are the results of performing different schemes which differ by various order placement distributions (refer to paragraphs 66, 71, and 73 of Kaneko). Different demand-supply schemes are proposed by adjusting order placement in sales steps and producing steps of a scheme, thus to generate different values of profitability index. Even if a profitability index is broadly taken as the means for prioritization, it is for prioritizing order placement distributions. An amount of order for each product placed by each of sales step is initially distributed (refer to paragraph 64 of Kaneko, step S108) and adjusted by (refer to paragraphs 66 and 71 of Kaneko) a CPU (i.e. CPU 42). Thus, order placement distributions are automatically initialized and adjusted by the CPU rather than being input to the apparatus.

Kaneko does not disclose nor teach such demand data which is first input, then classified and prioritized. Order placement can be variously modified to generate various demand-supply schemes associated with an initially input sales scheme to achieve the maximum profitability index. However these generated demand-supply schemes are not the initially input demand data, and the sale scheme has not been classified. Prioritization of the present invention is applied on originally input demand data while profitability index ranking of Kaneko is not.

Referring specifically to claim 1, claim 1 recites:

> 1. A computer-implemented method of classifying demand data for at least one allocation term, comprising using a computer to perform the steps of:
> inputting the demand data, order data of the allocation term, and supply data; and
> classifying the demand data into ***prioritized demand data according to the order data and the supply data***.

(*Emphasis added.*) Claim 1 patently defines over the cited reference for at least the reason that the cited reference fails to teach the features emphasized above.

As such, Kaneko does not disclose nor teach the presently claimed method of classifying demand data for at least one allocation term, comprising inputting the demand data, order data of the allocation term, and supply data and classifying the demand data into prioritized demand data according to the order data and the supply data. There is also no motivation to be found anywhere in Kaneko of attempting to provide such a method.

For at least these reasons, Applicants respectfully submit that claim 1 patently defines over Kaneko.

Claim 10

With regard to claim 10, claim 10 is directed to a storage medium for storing a computer program providing a method of classifying demand data for an allocation term, the method comprising the steps of inputting the demand data, order data of the allocation term, and supply data, and classifying the demand data into prioritized demand data according to the order data and the supply data.

Thus, like claim 1, claim 10 (among other features) defines "classifying the demand data into prioritized demand data according to the order data and the supply data." For reasons similar to the reasons discussed above in connection with claim 1, Kaneko does not disclose or teach such a method wherein demand data is first input, then classified and prioritized.

Kaneko did not disclose nor teach the presently claimed storage medium for storing a computer program providing a method of classifying demand data for at least one allocation term, comprising inputting the demand data, order data of the allocation term, and supply data and classifying the demand data into prioritized demand data according to the order data and the supply

data. There is also no motivation to be found any where in Kaneko of attempting to provide such a storage medium.

For at least the reasons stated above, Kaneko does not teach nor suggest all the limitations of independent claims 1 and 10 of the application. Therefore, claims 1 and 10 are allowable over the cited reference. Insofar as claims 2-9, 38, and 39 depend on claim 1, and claims 11-18, and 40 depend on claim 10, these claims are also in condition for allowance.

In view of the foregoing remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of claims 1-18 and 38-40.

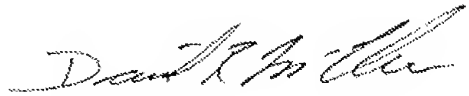
Conclusion

For at least the foregoing reasons, all pending claims are in condition for allowance, and the Examiner is respectfully requested to pass those claims to issuance. If the Examiner believes a teleconference will expedite the examination of this application, the Examiner is invited to contact the undersigned attorney at 770-933-9500.

No fee is believed to be due in connection with this Amendment and Response to Office Action. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to deposit account 20-0778.

Respectfully submitted,

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.

By: 

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